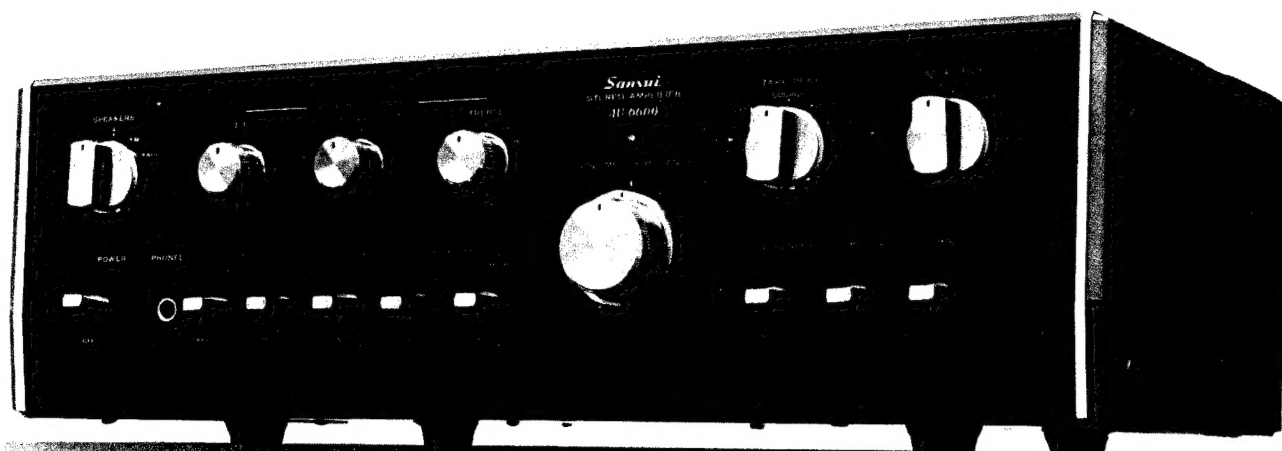


# SERVICE MANUAL

STEREO AMPLIFIER

**SANSUI AU-6600**



SANSUI ELECTRIC CO., LTD.

This service manual is designed for service engineers to repair, adjust, maintain and order the replacement parts of the AU-6600 correctly. When ordering the parts, use the stock number and parts name specifically referring to the Parts Locations & Parts Lists. For general usage and maintenance of the unit, please refer to the Operating Instructions attached with the unit.

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# 1. SPECIFICATIONS

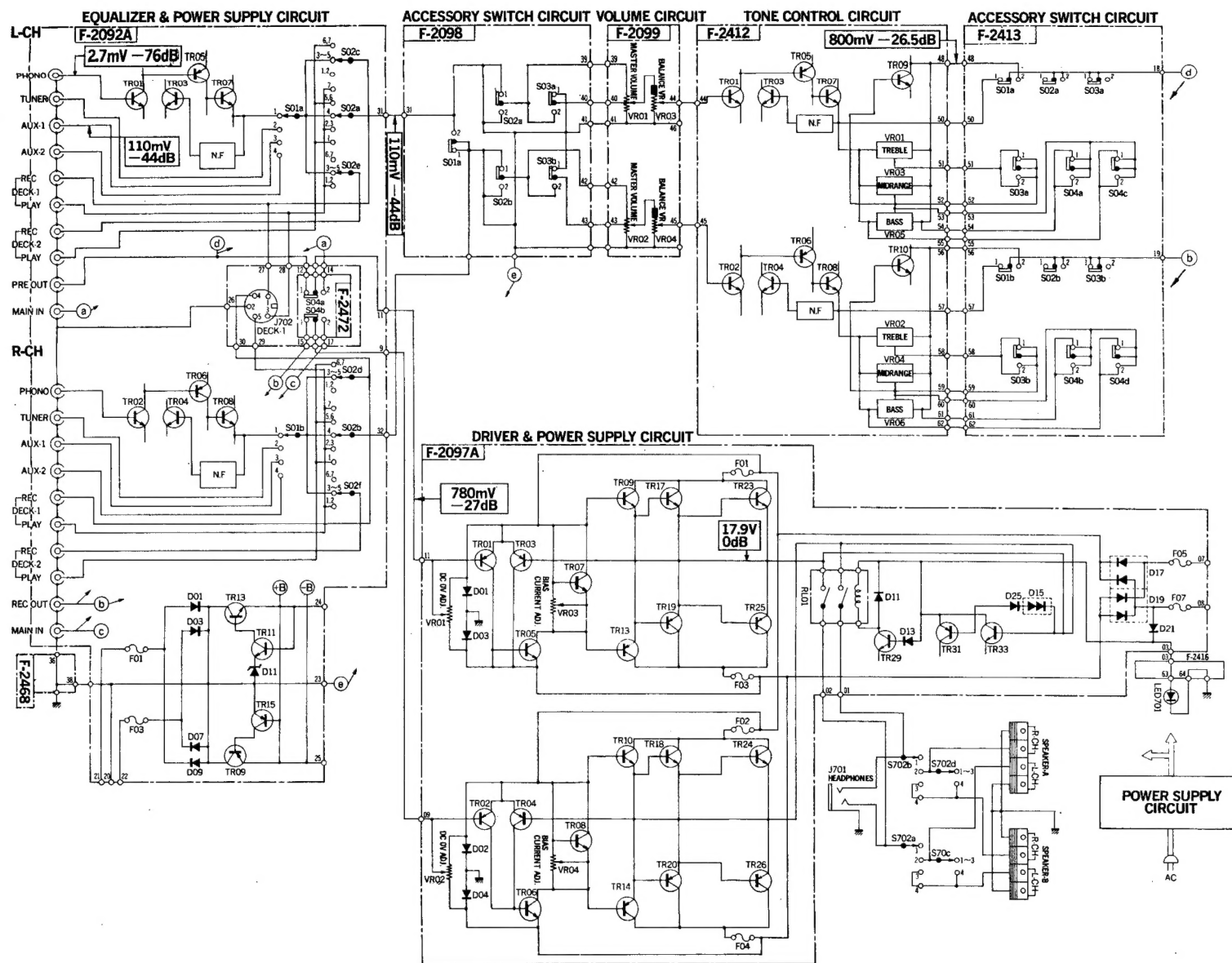
**POWER OUTPUT (at rated distortion)**  
**CONTINUOUS RMS POWER OUTPUT**  
     .....42 Watts per channel  $\times 2$   
     (both channels driven)  
**LOAD IMPEDANCE**..... $8\Omega$   
**POWER BAND**.....20 to 20,000Hz  
**TOTAL HARMONIC DISTORTION**  
     .....less than 0.15% (from AUX)  
     Music power (IHF).....190W ( $4\Omega$  1,000Hz)  
     120W ( $8\Omega$  1,000Hz)  
     Continuous rms power output ..45+45W ( $8\Omega$  1,000Hz)  
**INTERMODULATION DISTORTION (at rated power**  
**output 70Hz: 7,000Hz=4: 1 SMPTE method)**  
**OVERALL** .....less than 0.15%  
**PREAMPLIFIER ONLY** ....less than 0.1%  
**POWER (MAIN) AMPLIFIER ONLY**  
     .....less than 0.1%  
**FREQUENCY RESPONSE (at 1 Watt output)**  
**OVERALL** .....10 to 40,000Hz  $\pm 0.5$ dB  
**POWER (MAIN) AMPLIFIER ONLY**  
     .....5 to 40,000Hz  $\pm 0$ dB  
**EQUALIZATION (RIAA curve)**  
     .....30 to 15,000Hz  $\pm 0.5$ dB  
**DAMPING FACTOR** .....30 ( $8\Omega$ )  
**INPUT SENSITIVITY AND IMPEDANCE**  
     (1KHz, for rated power output)  
**PHONO** .....2.5mV  $50K\Omega$   
     (Max. input capability: 300mV at 0.2% total  
     harmonic distortion)  
**TUNER** .....100mV  $50K\Omega$   
**AUX-1 & -2** .....100mV  $50K\Omega$   
**TAPE DECK-1 & -2 (Pin Jacks)**....100mV  $50K\Omega$   
**TAPE DECK-1 (DIN Socket)**.....100mV  $50K\Omega$   
**MAIN IN** .....800mV  $50K\Omega$   
**OUTPUT LEVEL (1KHz)**  
**TAPE DECK-1 & -2 (Pin Jacks)**....100mV  
**TAPE DECK-1 (DIN Socket)**.....30mV  
**PRE OUT** .....800mV  
     (Max. output level: 5V at 0.5% total harmonic  
     distortion)  
**CHANNEL SEPARATION (1KHz, at rated power output)**  
**PHONO** .....better than 50dB  
**TUNER** .....better than 55dB  
**AUX-1 & -2** .....better than 55dB  
**TAPE DECK-1 & -2**.....better than 55dB  
**MAIN IN** .....better than 60dB  
**HUM AND NOISE (IHF)**  
**PHONO** .....better than 70dB  
**TUNER** .....better than 85dB  
**AUX-1 & -2** .....better than 85dB  
**TAPE DECK-1 & -2**.....better than 85dB  
**MAIN IN** .....better than 100dB

## SWITCHES AND CONTROLS

**BASS ( $\pm 5$  steps)**..... $\pm 13$ dB at 50Hz  
**TONE SELECTOR (TURNOVER FREQUENCIES)**  
     .....300Hz, 600Hz  
**MIDRANGE ( $\pm 5$  steps)**.. $\pm 5$ dB at 1KHz  
**TREBLE ( $\pm 5$  steps)**..... $\pm 13$ dB at 15KHz  
**TONE SELECTOR (TURNOVER FREQUENCIES)**  
     .....2KHz, 4KHz  
**LOUDNESS (Volume Control:  $-30$ dB)**  
     .....+10dB at 50Hz  
     +8dB at 10KHz  
**LOW FILTER** ..... $-3$ dB at 70Hz (6dB/oct.)  
**HIGH FILTER** ..... $-3$ dB at 7KHz (6dB/oct.)  
**MUTING** ..... $-20$ dB  
**OTHERS**  
**TRANSISTORS**.....45  
**DIODES** .....16  
**ZENER DIODES** ..... 3  
**LED** ..... 1  
**POWER REQUIREMENTS**..100, 117, 220, 240V, 50/60Hz  
**POWER CONSUMPTION**..90W (rated), 260W (max.)  
**DIMENSIONS** .....434mm ( $17\frac{1}{8}$ " W  
     130mm ( $5\frac{1}{8}$ " H  
     315mm ( $12\frac{7}{16}$ " D)  
**WEIGHT** .....11.3Kg (24.9 lbs) Net  
     13.0Kg (28.7 lbs) Packed

\* Design and specifications subject to change without notice for improvements.

## 2. BLOCK DIAGRAM AND VALUE OF EACH LEVEL



- |  |   |  |  |   |  |
|--|---|--|--|---|--|
| <p><b>S01a, b: SELECTOR (F-2092A)</b></p> <ol style="list-style-type: none"> <li>1. PHONO</li> <li>2. TUNER</li> <li>3. AUX-1</li> <li>4. AUX-2</li> </ol> | <p><b>S02a~f: TAPE PLAY (F-2092A)</b></p> <ol style="list-style-type: none"> <li>1. DECK-2</li> <li>2. DECK-1 COPY 1→2</li> <li>3. DECK-1</li> <li>4. SOURCE</li> <li>5. DECK-2</li> <li>6. DECK-2 COPY 2→1</li> <li>7. DECK-1</li> </ol> | <p><b>S04a, b: PRE-MAIN (F-2472)</b></p> <ol style="list-style-type: none"> <li>1. CONNECTED</li> <li>2. SEPARATED</li> </ol> <p><b>S01a: MODE (F-2098)</b></p> <ol style="list-style-type: none"> <li>1. STEREO</li> <li>2. MONO</li> </ol> <p><b>S02a, b: MUTING (F-2098)</b></p> <ol style="list-style-type: none"> <li>1. OUT</li> <li>2. -20dB</li> </ol> | <p><b>S03a, b: LOUDNESS (F-2098)</b></p> <ol style="list-style-type: none"> <li>1. OUT</li> <li>2. IN</li> </ol> <p><b>S01a, b: TONE (F-2413)</b></p> <ol style="list-style-type: none"> <li>1. DEFECT</li> <li>2. IN</li> </ol> <p><b>S02a, b: HIGH FILTER (F-2413)</b></p> <ol style="list-style-type: none"> <li>1. OUT</li> <li>2. IN</li> </ol> | <p><b>S03a, b: TONE SELECTOR (F-2413)</b></p> <ol style="list-style-type: none"> <li>1. 2kHz</li> <li>2. 4kHz</li> <li>3. 800Hz</li> <li>4. 300Hz</li> </ol> <p><b>S04a~d: TONE SELECTOR (F-2413)</b></p> <ol style="list-style-type: none"> <li>1. 800Hz</li> <li>2. 300Hz</li> </ol> <p><b>S05a, b: LOW FILTER (F-2413)</b></p> <ol style="list-style-type: none"> <li>1. OUT</li> <li>2. IN</li> </ol> | <p><b>S701: POWER</b></p> <ol style="list-style-type: none"> <li>1. OFF</li> <li>2. ON</li> </ol> <p><b>S702a~d: SPEAKERS</b></p> <ol style="list-style-type: none"> <li>1. OFF</li> <li>2. A</li> <li>3. B</li> <li>4. A+B</li> </ol> |
|--|---|--|--|---|--|



## 3. ADJUSTMENT

### 3-1. Driver Circuit Board Adjustment (See Fig. 3-1 and 3-2)

- Note: 1. Confirm the AC power supply voltage.  
 2. MASTER VOLUME ..... Minimum  
 3. SPEAKERS Selector ..... A  
 4. Make the SP terminals free (no load).  
 5. For adjustment, run the unit for more than 3 minutes after the power is switched ON.  
 6. Room temperature should be 18~28°C (65~83°F) for bias current adjustment.

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1	DC 0V L-ch	DC volt meter	SP terminal L-ch (See Fig. 3-2)	F-2097A VR01	0V ± 10mV	◦ Turn volumes of VR03, VR04 CCW
2	DC 0V R-ch	Same as above	SP terminal R-ch (See Fig. 3-2)	F-2097A VR02	Same as above	
3	Bias current L-ch	DC milliammeter	F-2097A F01 (See Fig. 3-1)	F-2097A VR03	25 ± 10mA	◦ Step down meter's range accordingly
4	Bias current R-ch	Same as above	F-2097A F02 (See Fig. 3-1)	F-2097A VR04	Same as above	

Fig. 3-1

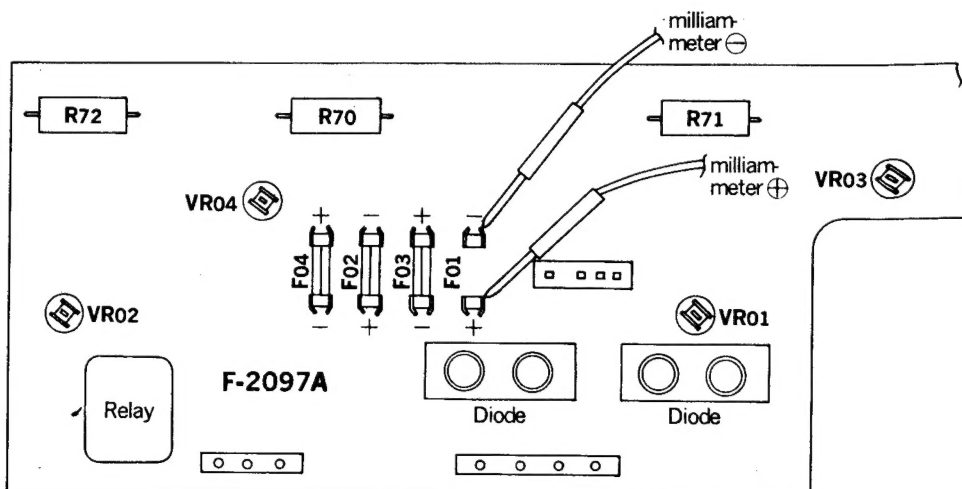
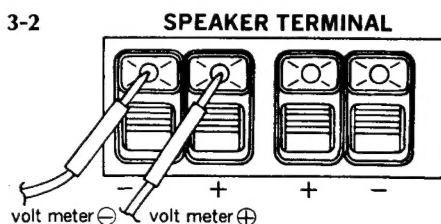


Fig. 3-2



### Condition of Level Measuring

\*Value of each level in block diagram was measured by the followings.

1. MASTER VOLUME control ..... Maximum
2. BASS, MIDRANGE, TREBLE & BALANCE  
volume controls ..... Center
3. TONE & FILTER switch control ..... IN
4. Input ..... PHONO-1 2.7mV 1kHz Sine Wave  
AUX-1, 2 110mV 1kHz Sine Wave

(output impedance of 600Ω at an audio oscillator)

5. Output ..... 17.9V (40W) 8Ω

Note: Each voltage value is for reference and measured by a VTVM. In some recorders, the actual voltage value is in minor difference from the reference value.

## 4. TROUBLESHOOTING CHART

### 4-1. Troubleshooting on Power Supply Section

Symptom	Check Point	Cause & What to Do
<b>1. No power supplied to each section</b>		
1-1. Indicator lamp for power not lighted		<ul style="list-style-type: none"> <li>1. Power supply cord open</li> <li>2. Imperfect contact of power switch, S701</li> <li>3. Power fuse, F701 open</li> <li>4. Defective power transformer, T701</li> <li>5. F07 on F-2097A open</li> <li>6. Defective D21 on F-2097A</li> <li>7. Imperfect contact of voltage selector, PU01</li> </ul>
1-2. Indicator lamp for power lighted		
1) $\pm 40V$ not supplied to collector on each power transistor (+40V, TR23, TR24, -40V, TR25, TR26)		<ul style="list-style-type: none"> <li>8. F05 or F07 on F-2097A open</li> <li>9. Defective D17 or D19 on F-2097A</li> </ul>
2) +24V not supplied to terminal <span style="border: 1px solid black; padding: 0 2px;">24</span> and -25V not supplied to terminal <span style="border: 1px solid black; padding: 0 2px;">25</span> on F-2092A		<ul style="list-style-type: none"> <li>10. Defective power transformer, T701</li> <li>11. F01 or F03 on F-2092A open</li> <li>12. Defective D01, D03, D07 or D09 on F-2092A</li> <li>13. Defective TR09, TR11, TR13 or TR15 on F-2092A</li> <li>14. Defective D11 on F-2092A</li> </ul>

### 4-2. Troubleshooting on Audio Section

#### 1. Quick acting fuse open

1-1. After replacement, F01 (F02) on F-2097A open again		<ul style="list-style-type: none"> <li>1. Defective TR23 (TR24) on F-2097A</li> <li>2. Defective TR09 or TR17 (TR10 or TR18) on F-2097A</li> </ul>
1-2. After replacement, F03 (F04) on F-2097A open again		<ul style="list-style-type: none"> <li>3. Defective TR25 (TR26) on F-2097A</li> <li>4. Defective TR13 or TR19 (TR14 or TR20) on F-2097A</li> </ul>
1-3. After replacement, fuse not open		
1) Bias current adjustable		5. Set the bias current to +25mA by VR03 (VR04) on F-2097A (refer to 3. ADJUSTMENT on page 4)
2) Bias current adjustable		<ul style="list-style-type: none"> <li>6. Defective VR03 (VR04) on F-2097A</li> <li>7. Defective TR05 or TR07 (TR06 or TR08) on F-2097A</li> </ul>
3) Center voltage adjustable		8. Set the center voltage to 0V by VR01 (VR02) on F-2097A (refer to 3. ADJUSTMENT on page 4)
4) Center voltage not adjustable		<ul style="list-style-type: none"> <li>9. Defective VR01 (VR02) on F-2097A</li> <li>10. Defective TR05 (TR06) on F-2097A</li> <li>11. Defective D01 or D03 (D02 or D04) on F-2097A</li> </ul>

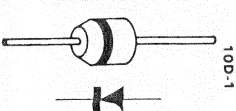
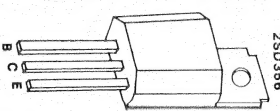
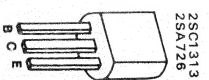
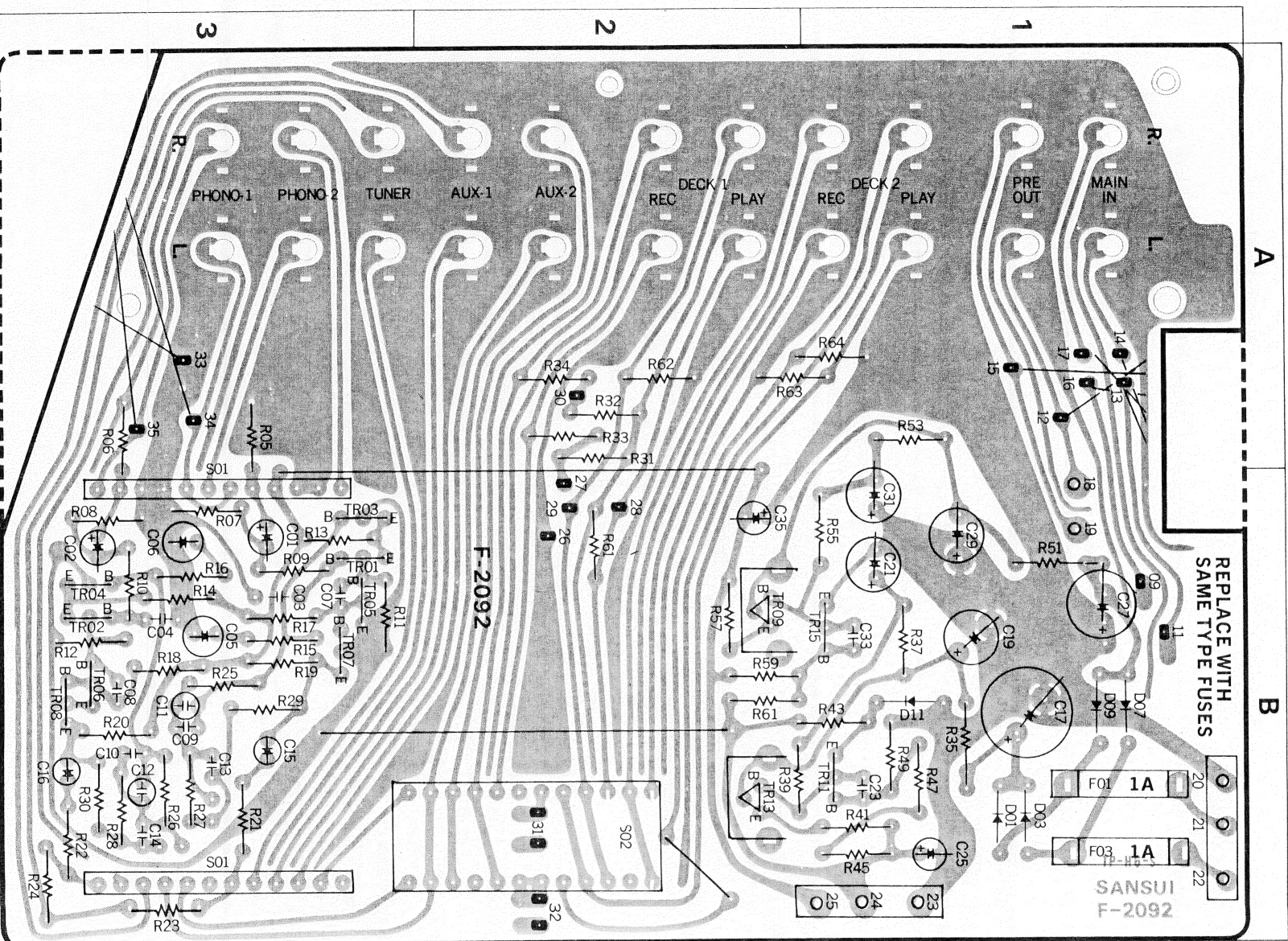
Symptom	Check Point	Cause & What to Do
<b>2. TUNER or AUX inoperative</b>		
2-1. Both channels inoperative		<ol style="list-style-type: none"> <li>1. Defective relay, RL01 on F-2097A</li> <li>2. Imperfect contact of SPEAKERS switch, S702a, c (S702b, d)</li> <li>3. Defective TR29, TR31 or TR33 on F-2097A</li> <li>4. Defective D13, D23 or D25 on F-2097A</li> <li>5. Defective Power Supply Section</li> </ol>
2-2. One channel inoperative		
※Set MODE switch to MONO		
1) Inoperative channel reverses		<ol style="list-style-type: none"> <li>6. Tuner connected from this set has faulty</li> <li>7. Imperfect contact of SELECTOR switch, S01a (S01b)</li> <li>8. Imperfect contact of TAPE PLAY switch, S02a (S02b)</li> </ol>
2) Inoperative channel not reverses		
※Set TONE switch to DEFEAT		
2-1) The inoperative channel becomes operating		<ol style="list-style-type: none"> <li>9. Defective TR09 (TR10) on F-2412</li> </ol>
2-2) The inoperative channel is still not operating		<ol style="list-style-type: none"> <li>10. Defective TR01, TR03, TR05 or TR07 (TR02, TR04, TR06 or TR08) on F-2412</li> <li>11. Imperfect contact of HIGH FILTER switch S02a (S02b)</li> <li>12. Imperfect contact of TONE SELECTOR switch, S03a (S03b)</li> <li>13. Imperfect contact of PRE-MAIN switch, S04a (S04b)</li> <li>14. Defective Driver &amp; Power Supply circuit board</li> </ol>
<b>3. PHONO inoperative</b>		
3-1. Both channels inoperative		<ol style="list-style-type: none"> <li>1. Refer to 2-1. of 2. Both channels inoperative</li> </ol>
3-2. One channel inoperative		
※Set MODE switch to MONO		
1) Inoperative channel reverses		<ol style="list-style-type: none"> <li>2. Turntable connected from this set has faulty</li> <li>3. Defective TR01, TR03, TR05 or TR07 (TR02, TR04, TR06 or TR08) on F-2092A</li> </ol>
2) Inoperative channel not reverses		<ol style="list-style-type: none"> <li>4. Refer to 2-2. of 2. One channel inoperative</li> </ol>

## 5. PARTS LOCATIONS AND PARTS LISTS

### 5-1. F-2092A Equalizer & Power Supply Circuit Board

Conductor Side

(Stock No. 7550590 Complete Circuit Board F-2092A)

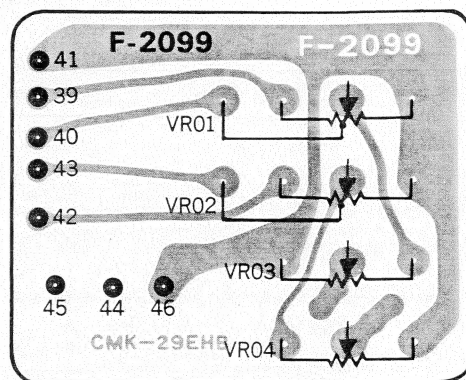


## Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306071, 2	2SC1313 (R) (G, H)	Transistor
TR03, 04	0306071, 2	2SC1313 (R) (G, H)	
TR05, 06	0300470, 1	2SA726 (W) (F, G)	
TR07, 08	0306070~2	2SC1313 (R) (F, G, H)	
TR09	0303280~2	2SB526 (C, D, E)	
TR11	0306070~2	2SC1313 (R) (F, G, H)	
TR13	0308450~2	2SD356 (C, D, E)	2 B
TR15	0300470, 1	2SA726 (W) (F, G)	
D01	0310340	10D-1	Diode
D03	0310340	10D-1	
D07	0310340	10D-1	
D09	0310340	10D-1	
D11	0316316	RD13E(B)	
C01, 02	0519103	0.47 $\mu$ F 50V E.C.	2 B
C03, 04	0660330	33pF 50V C.C.	2 B
C05, 06	0532100	10 $\mu$ F 16V BP.E.C.	2 B
C07, 08	0660470	47pF 50V C.C.	2 B
C09, 10	0600826	0.0082 $\mu$ F 50V M.C.	2 B
C11, 12	0621561	560pF 50V P.C.	2 B
C13, 14	0600276	0.0027 $\mu$ F 50V M.C.	2 B
C15, 16	0533339	3.3 $\mu$ F 25V E.C.	2 B
C17	0515221	220 $\mu$ F 50V E.C.	1 B
C19	0514101	100 $\mu$ F 35V E.C.	1 B
C21	0515470	47 $\mu$ F 50V E.C.	1 B
C23	0660221	220pF 50V C.C.	1 B
C25	0513100	10 $\mu$ F 25V E.C.	1 B
C27	0515101	100 $\mu$ F	1 B
C29	0515470	47 $\mu$ F 50V E.C.	1 B
C31	0515470	47 $\mu$ F	1 A, B
C33	0660221	220pF 50V C.C.	1 B
C35	0513479	4.7 $\mu$ F 25V E.C.	2 B
C901, 902	0601107	0.01 $\mu$ F 50V M.C.	50V E.C.
C903, 904	0515339	3.3 $\mu$ F 50V E.C.	
C905, 906	0657223	0.022 $\mu$ F	
C907, 908	0660101	100 pF	
R05, 06	0107683	68k $\Omega$	3 A
R07, 08	0107224	220k $\Omega$	3 B
R09, 10	0107152	1.5k $\Omega$	3 B
R11, 12	0107822	8.2k $\Omega$	3 B
R13, 14	0107124	120k $\Omega$	3 B
R15, 16	0107821	820 $\Omega$	3 B
R17, 18	0107223	22k $\Omega$	3 B
R19, 20	0107472	4.7k $\Omega$	3 B
R21, 22	0107101	100 $\Omega$	3 B
R23, 24	0107563	56k $\Omega$	3 B
R25, 26	0107474	470k $\Omega$	3 B
R27, 28	0107273	27k $\Omega$	3 B
R29, 30	0107561	560 $\Omega$	3 B
R31, 32	0107104	100k $\Omega$	2 A
R33, 34	0107224	220k $\Omega$	2 A
R35	0104181	180 $\Omega$ 1 W C.R.	1 B
R37	0107272	2.7k $\Omega$	1 B
R39	0107821	820 $\Omega$	2 B
R41	0107220	22 $\Omega$	1 B
R43	0107821	820 $\Omega$	1/4 W C.R.
R45	0107392	3.9k $\Omega$	
R47	0107471	470 $\Omega$	1 B
R49	0107682	6.8k $\Omega$	1 B
R51	0103331	330 $\Omega$ 1/2 W C.R.	1 B
R53	0107392	3.9k $\Omega$ 1/4 W C.R.	1 A

Parts No.	Stock No.	Description	Position
R55	0107122	1.2k $\Omega$	1 B
R57	0107330	33 $\Omega$	2 B
R59	0107153	15k $\Omega$	2 B
R61	0107153	15k $\Omega$	2 B
R61	0107474	470k $\Omega$	2 B
R62	0107474	470k $\Omega$	2 A
R63	0107474	470k $\Omega$	1, 2 A
R64	0107474	470k $\Omega$	1, 2 A
S01	1101540	SRE-1-2-4	Rotary Switch
S02	1102560	SRE-2-6-7	
F01	0430830	1A (20m/m)	Fuse
F03	0430830	1A (20m/m)	
	2310150	Fuse Holder	
	2430250	Pin Jack	
	5936691	Heat Sink	

## 5-2. F-2099 Volume Circuit Board Conductor Side



## Parts List

Parts No.	Stock No.	Description
VR01~04	1060320	250k $\Omega$ (MN, B) $\times$ Volume

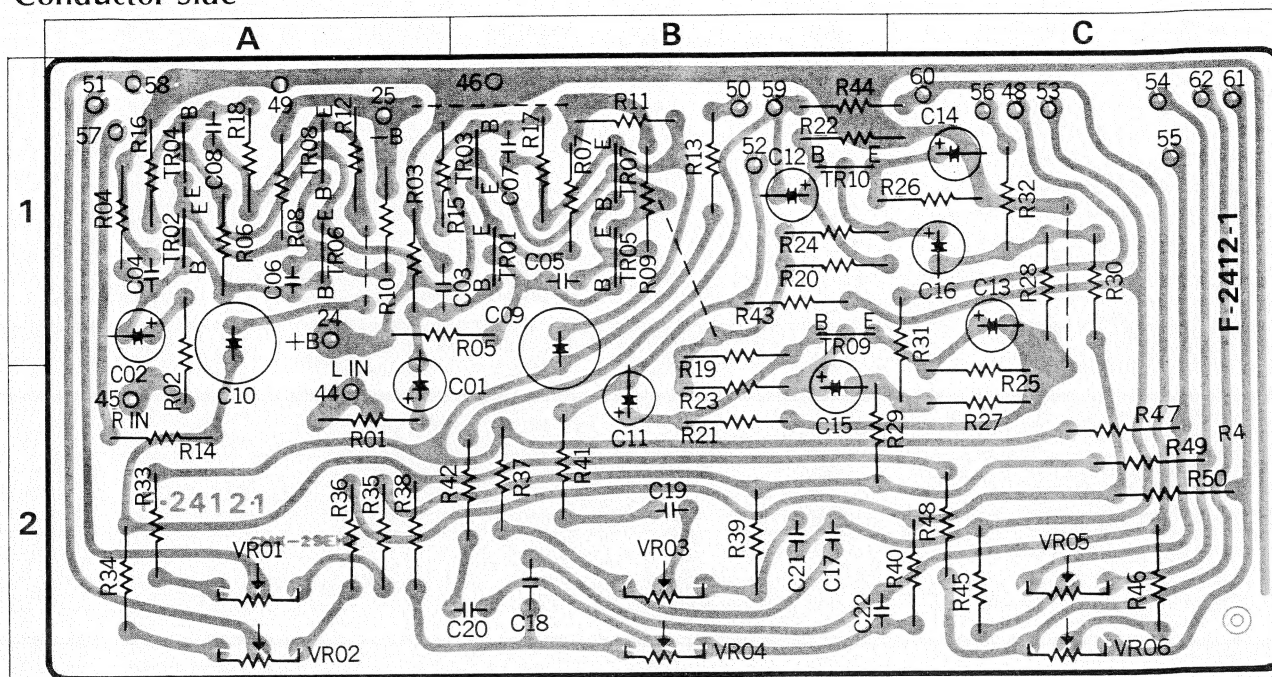
## Abbreviations

C.R.	: Carbon Resistor	BP.E.C.:	Bi-Polar Electrolytic Capacitor
S.R.	: Solid Resistor	C.C.	: Ceramic Capacitor
Ce.R.	: Cement Resistor	Mi.C.	: Mica Capacitor
M.R.	: Metallized Film Resistor	O.C.	: Oil Capacitor
M.C.	: Mylar Capacitor	P.C.	: Polystyrene Capacitor
E.C.	: Electrolytic Capacitor	T.C.	: Tantalum Capacitor



### 5-3. F-2412 Tone Control Circuit Board (Stock No. 7560830 Complete Circuit Board F-2412)

Conductor Side



2SC1313  
2SA726



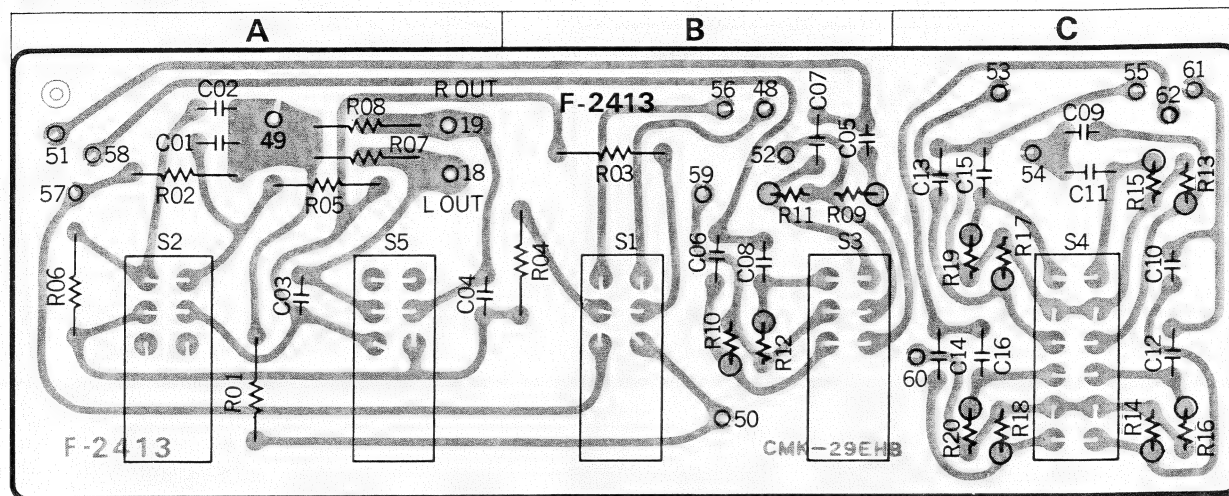
#### Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306070, 1	2SC1313® (F, G)	1 B. 1 A
TR03, 04	0306070, 1	2SC1313® (F, G)	1 B. 1 A
TR05, 06	0300470, 1	2SA726 ® (F, G)	1 B. 1 A
TR07, 08	0306070, 1	2SC1313® (F, G)	1 B. 1 A
TR09, 10	0306070, 1	2SC1313® (F, G)	1 B
Transistor			
C01, 02	0519103	0.47 µF 50V E.C.	1, 2 A. 1 A
C03, 04	0660330	33pF	1 A
C05, 06	0660220	22pF	1 B. 1, 2 B
C07, 08	0660680	68pF	1 B. 1 A
C09, 10	0533220	22 µF 25V BP.E.C.	1 A. 1, 2 A
C11, 12	0519101	1 µF 50V E.C.	2 B. 1 B
C13, 14	0510470	47 µF 6.3V E.C.	1 C
C15, 16	0519001	10 µF 25V E.C.	2 B. 1 C
C17, 18	0601686	0.0068 µF	2 B
C19, 20	0601476	0.0047 µF	2 B
C21, 22	0601686	0.0068 µF	2 B
C901, 902	0601107	0.01 µF	2 A
C903, 904	0660150	15 pF	2 A
C905	0657223	0.022 µF	2 A
50V C.C.			
R01, 02	0107222	2.2kΩ	2 A. 1, 2 A
R03, 04	0107124	120kΩ	1 A
R05, 06	0107822	8.2kΩ	1 A, B. 1 A
R07, 08	0107124	120kΩ	1 B. 1 A
R09, 10	0107223	22kΩ	1 B. 1 A
R11, 12	0107472	4.7kΩ	1 B. 1 A
R13, 14	0107101	100Ω	1 B. 2 A
R15, 16	0107222	22kΩ	1 A
R17, 18	0107183	18kΩ	1 B. 1 A
1/4 W C.R.			

Parts No.	Stock No.	Description	Position
R19, 20	0107334	330kΩ	1 B
R21, 22	0107683	68kΩ	2 B. 1 B, C
R23, 24	0107222	2.2kΩ	2 B. 1 B
R25, 26	0107471	470Ω	2 C. 1 B, C
R27, 28	0107104	100kΩ	2 C. 1 C
R29, 30	0107101	100Ω	2 B. 1 C
R31, 32	0107101	100Ω	1, 2 C. 1 C
R33, 34	0107272	2.7kΩ	2 A
R35, 36	0107272	2.7kΩ	2 A
R37, 38	0107472	4.7kΩ	2 B. 2 A
R39, 40	0107472	4.7kΩ	2 B. 2 C
R41, 42	0107273	27kΩ	2 B
R43, 44	0107223	22kΩ	1 B. 1 B, C
R45, 46	0107471	470Ω	2 C
R47, 48	0107822	8.2kΩ	2 C
R49, 50	0107822	8.2kΩ	2 C
1/4 W C.R.			
VR01, 02	1015110, 1	50kΩ (B) × 2	2 A
VR03, 04	1015110, 1	50kΩ (B) × 2	2 B
VR05, 06	1015110, 1	50kΩ (B) × 2	2 C
Variable Resistor			

# 5-4. F-2413 Accessory Switch Circuit Board (Stock No. 7592150 Complete Circuit Board F-2413)

## Conductor Side



## Parts List

Parts No.	Stock No.	Description	Position
C01,02	0601686	0.0068 $\mu$ F	A
C03,04	0601477	0.047 $\mu$ F	A
C05,06	0601226	0.0022 $\mu$ F	B
C07,08	0601126	0.0012 $\mu$ F	B
C09,10	0601686	0.0068 $\mu$ F	B
C11,12	0601227	0.022 $\mu$ F	B
C13,14	0601686	0.0068 $\mu$ F	B
C15,16	0601227	0.022 $\mu$ F	B
R01,02	0107104	100k $\Omega$	A
R03,04	0107332	3.3k $\Omega$	B
R05,06	0107824	820k $\Omega$	A
R07,08	0107104	100k $\Omega$	A
R09,10	0106105	1M $\Omega$	B
R11,12	0106105	1M $\Omega$	B
R13,14	0106105	1M $\Omega$	B
R15,16	0106105	1M $\Omega$	B
R17,18	0106105	1M $\Omega$	C, B
R19,20	0106105	1M $\Omega$	B
S01-03	1170340	SX15-5	Lever Switch
S04	1170360	SX15-7	
S05	1170340	SX15-5	

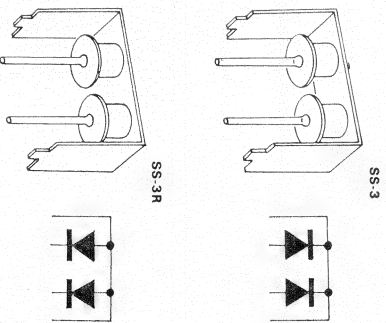
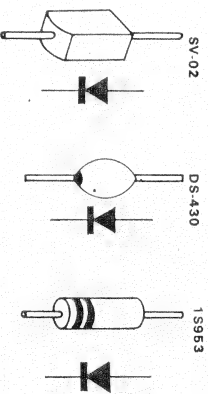
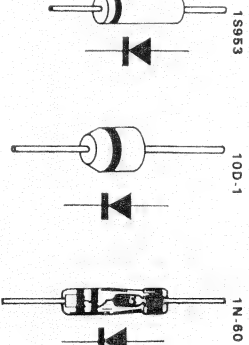
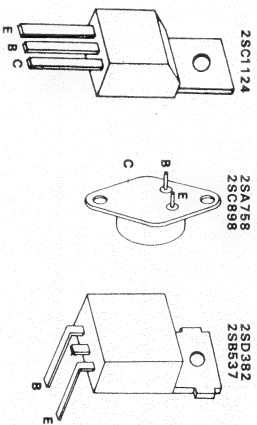
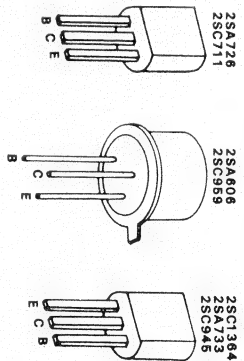
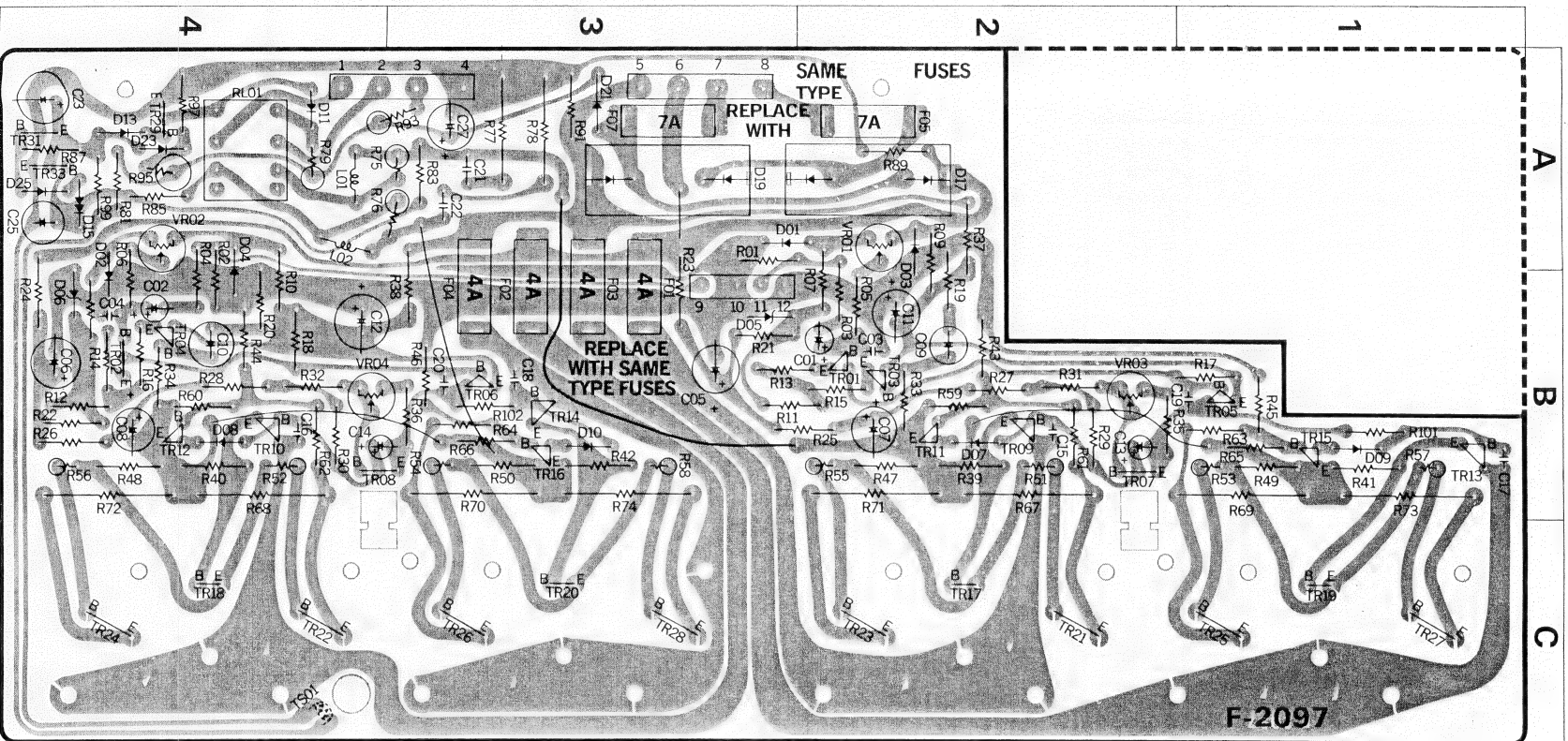
## Abbreviations

C.R.	: Carbon Resistor	BP.E.C.:	Bi-Polar Electrolytic Capacitor
S.R.	: Solid Resistor	C.C.	: Ceramic Capacitor
Ce.R.	: Cement Resistor	Mi.C.	: Mica Capacitor
M.R.	: Metallized Film Resistor	O.C.	: Oil Capacitor
M.C.	: Mylar Capacitor	P.C.	: Polystyrene Capacitor
E.C.	: Electrolytic Capacitor	T.C.	: Tantalum Capacitor

## 5-5. F-2097A Driver & Power Supply Circuit Board

Conductor Side

(Stock No. 7570920 Complete Circuit Board F-2097A)





# Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0300470, 1	2SA726 (F, G)	2 B, 4 B
TR03, 04	0300470, 1	2SA726 (F, G)	2 B, 4 B
TR05, 06	0305900, 1	2SC1124 (1, 2)	1 B, 3 B
TR07, 08	0305731-3	2SC711 (E, F, G)	2 B, 3, 4B
TR09, 10	0305742, 3	2SC959 (L, K)	2 B, 4 B
TR13, 14	0300212, 3	2SA606 (L, K)	1 B, 3 B
TR17, 18	0308441, 2	2SD382 (M, L)	2 C, 4 C
TR19, 20	0303271, 2	2SB537 (M, L)	1 C, 3 C
TR23, 24	0305701	2SC898 (B)	2 C, 4 C
TR25, 26	0300671, 2	2SA758 (B, C)	1 C, 3 C
TR29	0306130-2	2SC1364 (5, 6, 7)	4 A
TR31	0300510-2	2SA733 (P, Q, R)	4 A
TR33	0305950-2	2SC945 (R, Q, P)	4 A
Transistor			
D01, 02	0340090	DS-430	2,3A,4A,B
D03, 04	0340090	DS-430	2A,B,4A,B
D05, 06	0316230	RD-9.1E(B)	3 B, 4 B
D11	0310340	10D-1	4 A
D13	0311050	1S953	4 A
D15	0310490	SV-02	4 A
D17	0311290	SS-3	2 A
D19	0311300	SS-3R	3 A
D21	0310340	10D-1	3 A
D23	0310331	1N60	4 A
D25	0340090	DS-430	4 A
Diode			
C01, 02	0519101	1 $\mu$ F 50V E.C.	2 B, 4 B
C03, 04	0660470	47pF 50V C.C.	2 B, 4 B
C05, 06	0515101	100 $\mu$ F 50V E.C.	3 A, 4 B
C07, 08	0515470	47 $\mu$ F 50V E.C.	2 B, 4 B
C09, 10	0530470	47 $\mu$ F 6.3V E.C.	2 B, 4 B
C11, 12	0515101	100 $\mu$ F 50V E.C.	2 B, 4 B
C13, 14	0515109	1 $\mu$ F 50V E.C.	2 B, 4A, B
C15, 16	0660100	10pF	2 B, 4 B
C17, 18	0660100	10pF 50V C.C.	1 B, 3 A
C19, 20	0660220	22pF	1 B, 3 A
C21, 22	0601687	0.068 $\mu$ F 50V M.C.	3 A
C23	0510471	470 $\mu$ F 6.3V E.C.	4 A
C25	0531101	100 $\mu$ F 10V E.C.	4 A
C27	0515330	33 $\mu$ F 50V E.C.	3 A
C901	0601106	0.001 $\mu$ F 50V M.C.	
C902, 903	0601107	0.01 $\mu$ F	
R01, 02	0107474	470k $\Omega$	3 A, 4A,B
R03, 04	0107103	10k $\Omega$	2A,B,4A,B
R05, 06	0107104	100k $\Omega$	2 B, 4A,B
R07, 08	0107822	8.2k $\Omega$	2A,B, 4 B
R09, 10	0107393	39k $\Omega$	2A,B,4A,B
R11, 12	0107332	3.3k $\Omega$	2, 3B, 4 B
R13, 14	0107100	10 $\Omega$	2, 2B, 4 B
R15, 16	0107100	10 $\Omega$	2 B, 4 B
R17, 18	0107821	820 $\Omega$	1, 2 B, 4B
R19, 20	0107332	3.3k $\Omega$	2A, B, 4B
R21, 22	0103472	4.7k $\Omega$	3 B, 4 B
R23, 24	0103181	180 $\Omega$	3A,B,4A,B
R25, 26	0103102	1k $\Omega$	2,3 B, 4 B
R27, 28	0103472	4.7k $\Omega$	2 B, 4 B
R29, 30	0107390	39 $\Omega$	2 B, 4 B
R31, 32	0107682	6.8k $\Omega$	2 B, 4 B
R33, 34	0107582	82k $\Omega$	2 B, 4 B
R35, 36	0107122	1.2k $\Omega$	2 B, 3 B
R37, 38	0103101	100 $\Omega$	2A,B,3A,B
R39, 40	0103102	1k $\Omega$	2 B, 4 B

Parts No.	Stock No.	Description	Position
R41, 42	0103102	1k $\Omega$ 1/2W C.R.	1 B, 3 B
R47, 48	0103101	100 $\Omega$	2 B, 4 B
R49, 50	0103101	100 $\Omega$	1 B, 3 B
R53, 54	0103100	10 $\Omega$	1 B, 3 B
R55, 56	0103100	10 $\Omega$	2 B, 4 B
R69, 70	0133478	0.47 $\Omega$	1,2 B, 3B
R71, 72	0133478	0.47 $\Omega$	2 B, 4 B
R75, 76	0104479	4.7 $\Omega$ 1W C.R.	3 A
R77, 78	0105100	10 $\Omega$ 2W C.R.	3 A
R79	0104181	180 $\Omega$ 1W C.R.	4 A
R81	0107823	82k $\Omega$	4 A
R83	0107823	82k $\Omega$	3 A
R85	0107104	100k $\Omega$	4 A
R87	0107473	47k $\Omega$	4 A
R89	0103562	5.6k $\Omega$	2 A
R91	0103562	5.6k $\Omega$	3 A
R93	0105182	1.8k $\Omega$	3, 4 A
R95	0105182	1.8k $\Omega$	4 A
R97	0107221	220 $\Omega$	4 A
R99	0107223	22k $\Omega$	4 A
R909	0107102	1k $\Omega$	4 A
RL01	1150251	RABK-2B Relay	4 A
L101, 102	4290210	2.5 $\mu$ H Micro Inductor	4 A, B
VR01, 02	1035110	4.7k $\Omega$ (B)	2 A
VR03, 04	1035070	1k $\Omega$ (B)	2 B, 3, 4B
F01~04	0433630	4A Quick Acting Fuse	3 A, B
F05, 07	0430920	7A 20m/m Power Fuse	2 A, 3 A
	5937061	Heat Sink	
	2310150	Fuse Holder	

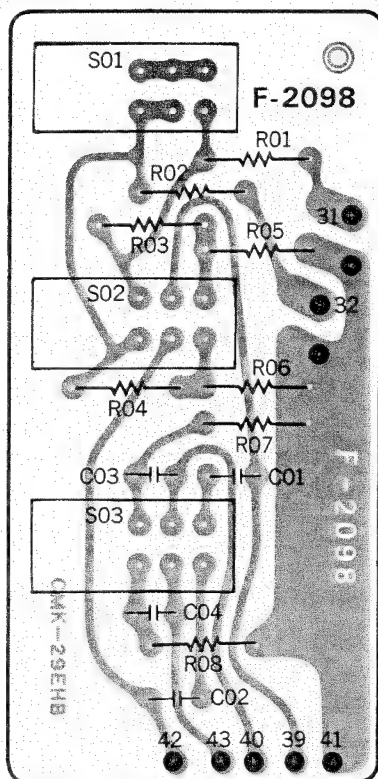
## Abbreviations

C.R. : Carbon Resistor	BP.E.C.: Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	C.C. : Ceramic Capacitor
Ce.R. : Cement Resistor	Mi.C. : Mica Capacitor
M.R. : Metallized Film Resistor	O.C. : Oil Capacitor
M.C. : Mylar Capacitor	P.C. : Polystyrene Capacitor
E.C. : Electrolytic Capacitor	T.C. : Tantalum Capacitor

## 5-6. F-2098 Accessory Switch Circuit Board

(Stock No. 7592170 Complete Circuit Board F-2098)

### Conductor Side



### Parts List

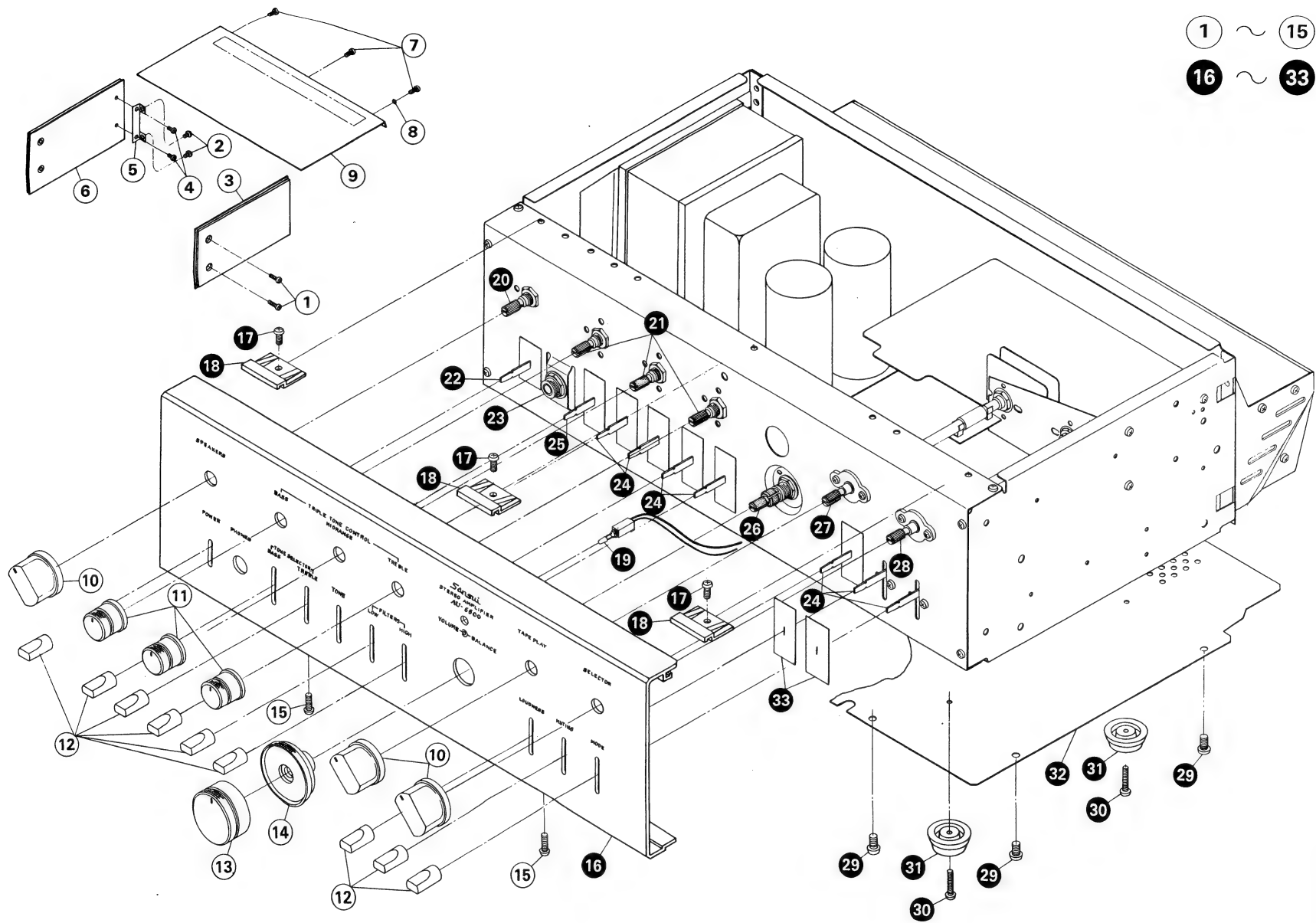
Parts No.	Stock No.	Description
C01, 02	0660391	390 pF 50V C.C.
C03, 04	0601227	0.022 $\mu$ F 50V M.C.
R01, 02	0107103	10 k $\Omega$
R03, 04	0107474	470 k $\Omega$
R05, 06	0107823	82 k $\Omega$
R07, 08	0107223	22 k $\Omega$
S01-03	1170340	SX15-5 Lever Switch

## 5-7. Other Parts (Front Side) Parts List

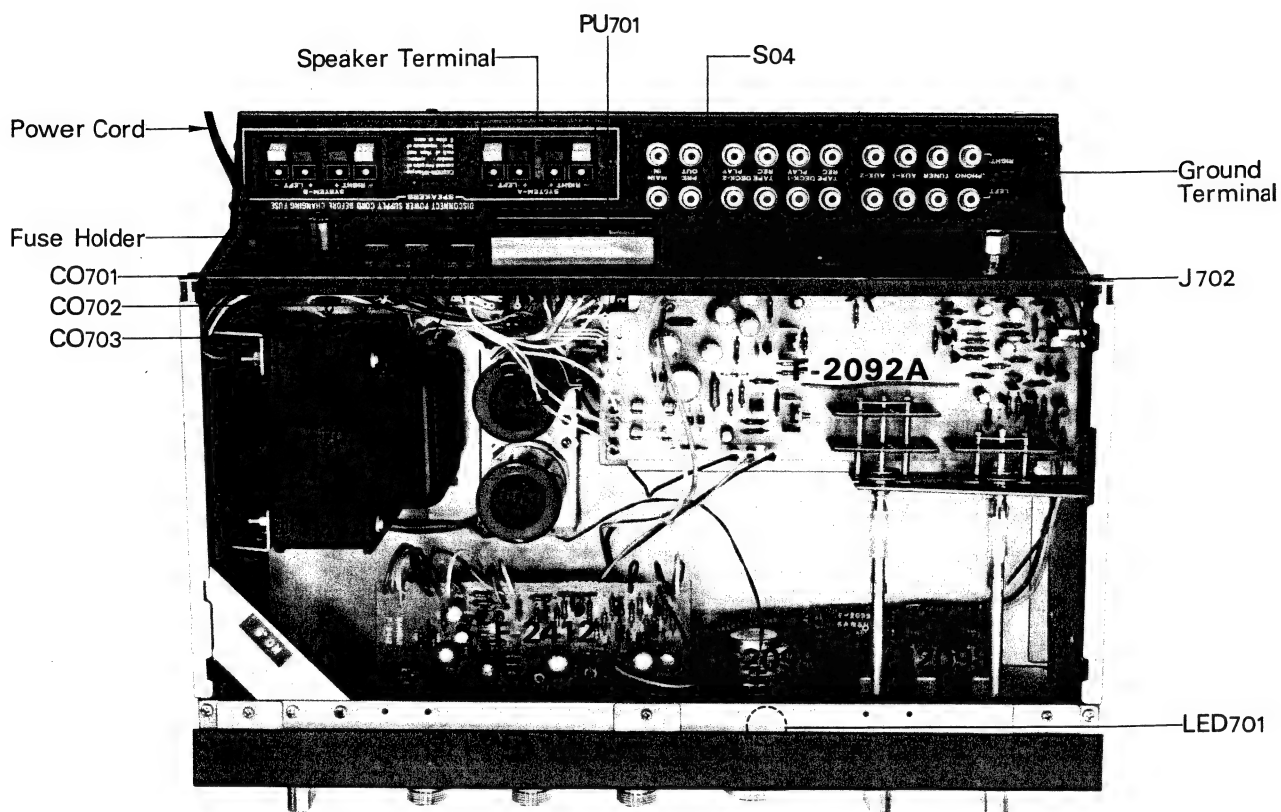
Parts No.	Stock No.	Description
1	5101161	Binding Head Screw, M4 $\times$ 6
2	5109222	Binding Head Tapping Screw, M3 $\times$ 8
3	5309270	Side Panel (Right)
4	5109121	Binding Head Tapping Screw, M3 $\times$ 6
5	5269830	Side Panel Retainer
6	5309260	Side Panel (Left)
7	5109222	Binding Head Tapping Screw, M3 $\times$ 8
8	5122540	Toothed Lock Washer (External), 3 $\phi$
9	5006340	Metal Bonnet
10	5317880	S-5 Type Knob
11	5318041	S-5 Type Knob (Tone Control)
12	5326460	E-1 Type Knob
13	5318001	W0-3 Type Knob (Volume)
14	5318080	U-5 Type Knob (Balance)
15	5109222	Binding Head Tapping Screw, M3 $\times$ 8
16	{ 5309220	Front Panel
	{ 5269800	Holder (Light Emitted Diode)
17	5109222	Binding Head Tapping Screw, M3 $\times$ 8
18	5269880	Stopper (Front Panel)
19	7726080	Light Emitted Diode (SDB-501A-RD)
20	1101560, 1	Rotary Switch Y-1-4-4 (Speakers)
21	1015110, 1	50 k $\Omega$ (B) $\times$ 2 Tone Control Volume
22	1170330	Lever Switch (Power)
23	2430190	Headphones Jack
24	1170340	Lever Switch
25	1170360	Lever Switch
26	1060320	250 k $\Omega$ (MN, B) $\times$ 4 Volume, Balance Volume
27	1102560	Rotary Switch SRE-2-6-7 (Tape Play)
28	1101540	Rotary Switch SRE-1-2-4 (Selector)
29	5109222	Binding Head Tapping Screw, M3 $\times$ 8
30	5166520	Washer Head Tapping Screw, M3 $\times$ 12
31	5516940	Foot
32	5058221	Bottom Plate
33	5047460	Masking (Lever Switch)

### Abbreviations

C.R.	: Carbon Resistor	BP.E.C.	: Bi-Polar Electrolytic Capacitor
S.R.	: Solid Resistor	C.C.	: Ceramic Capacitor
Ce.R.	: Cement Resistor	Mi.C.	: Mica Capacitor
M.R.	: Metallized Film Resistor	O.C.	: Oil Capacitor
M.C.	: Mylar Capacitor	P.C.	: Polystyrene Capacitor
E.C.	: Electrolytic Capacitor	T.C.	: Tantalum Capacitor



## 5-8. Other Parts (Top Side)

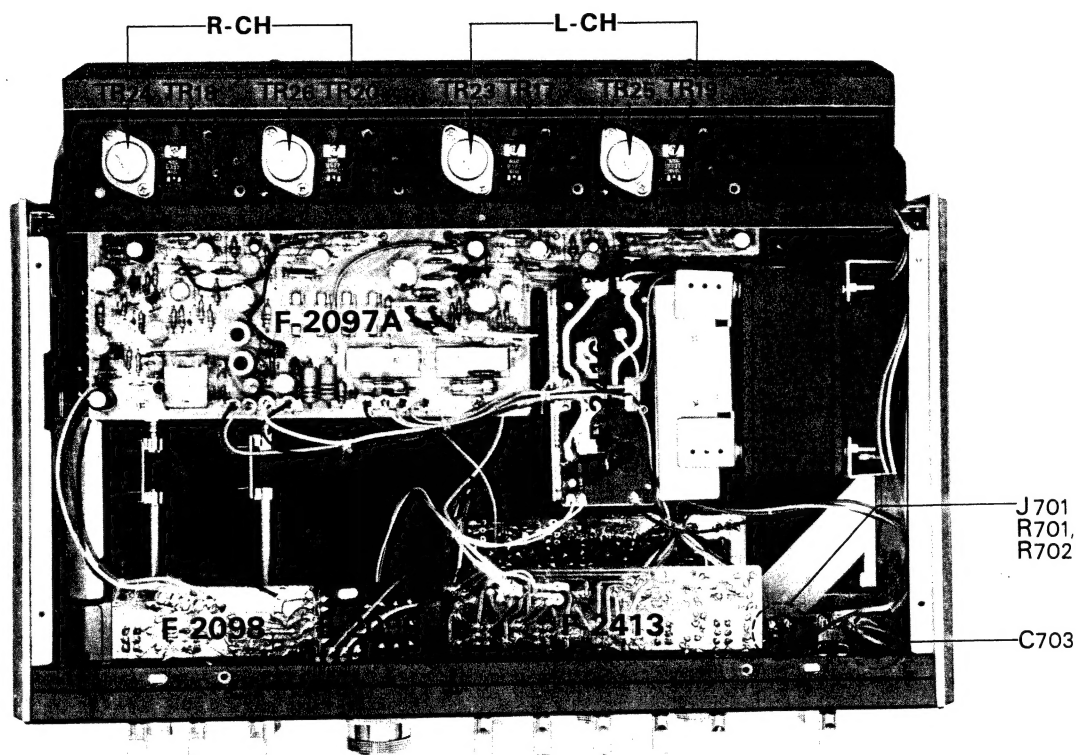


## Parts List

Parts No.	Stock No.	Description
C701	0559321	6800 $\mu$ F
C702	0559321	6800 $\mu$ F
LED701	7726080	SDB-501A-RD Light Emitted Diode
J702	2090040	DIN Jack
S04	1110280	SSB02230 Slide Switch
CO701	2450050	AC Outlet
CO702	2450050	
CO703	2450050	
F701	0431270	4A Power Fuse (100~117V)
	0431240	2A Power Fuse (220~240V)
	2300060	Fuse Holder

Parts No.	Stock No.	Description
T701	4002140	Power Transformer
PU01	2410080	Voltage Selector, socket
	2410090	Voltage Selector, plug
	2290100	4P Speaker Terminal
	3800020	Power Cord (KP-200)
	2230050	Ground Terminal

## 5-9. Other Parts (Bottom Side)



### Parts List

Parts No.	Stock No.	Description
TR17	0308441, 2	2SD382 (M, L)
TR18	0308441, 2	2SD382 (M, L)
TR19	0303271, 2	2SB537 (M, L)
TR20	0303271, 2	2SB537 (M, L)
TR23	0306701	2SC898 (B)
TR24	0306701	2SC898 (B)
TR25	0300671, 2	2SA758 (B, C)
TR26	0300671, 2	2SA758 (B, C)
} Transistor		
C703	0659801	0.01 $\mu$ F 1.4kV C.C.
R701	0104221	220 $\Omega$ } 1W C.R.
R702	0104221	220 $\Omega$ }
J701	2430190	Headphone Jack

### Abbreviations

C.R.	: Carbon Resistor
S.R.	: Solid Resistor
Ce.R.	: Cement Resistor
M.R.	: Metallized Film Resistor
M.C.	: Mylar Capacitor
E.C.	: Electrolytic Capacitor
BP.E.C.	: Bi-Polar Electrolytic Capacitor
C.C.	: Ceramic Capacitor
Mi.C.	: Mica Capacitor
O.C.	: Oil Capacitor
P.C.	: Polystyrene Capacitor
T.C.	: Tantalum Capacitor

## 6. REPLACEMENT OF POWER TRANSISTORS

- 1) Remove 4 pcs-screws installing on left (or right) side panel.
- 2) Remove 11 pcs-screws installing on bottom plate.
- 3) Remove all connectors and screws, ① and ② (See Fig. 6-1) installing on F-2097A.
- 4) Remove screw, ③, ④, ⑤ and ⑥ (See Fig. 6-2) installing heat sink.
- 5) Remove driver & power supply circuit board ass'y (F-2097A), then replace the transistors with new ones.

Fig. 6-1

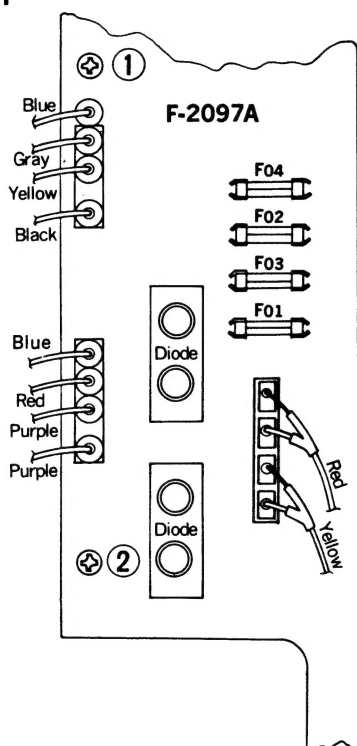
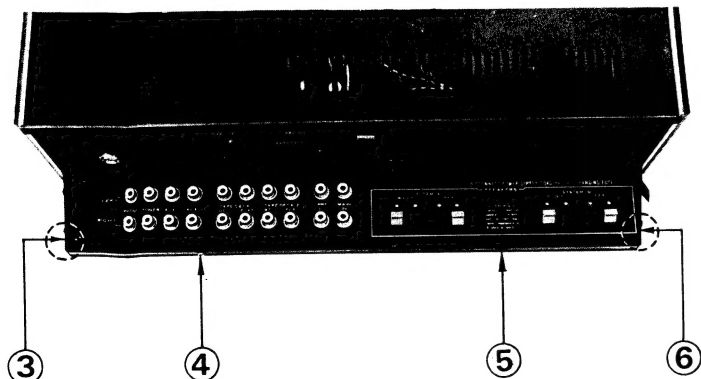
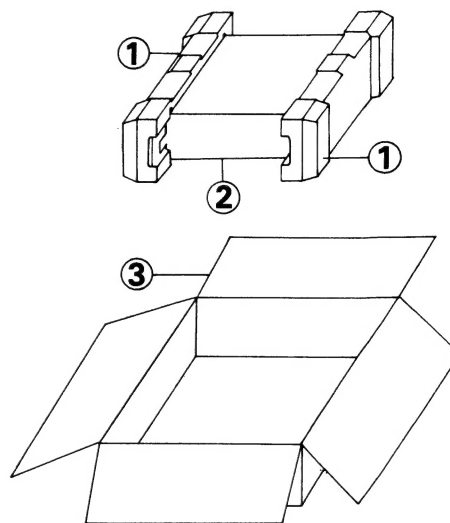


Fig. 6-2



## 7. PACKING LIST

Parts No.	Stock No.	Description
1	9027810	Stylofoam Packing
2	9116152	Vinyl Cover
3	9008111	Carton Case

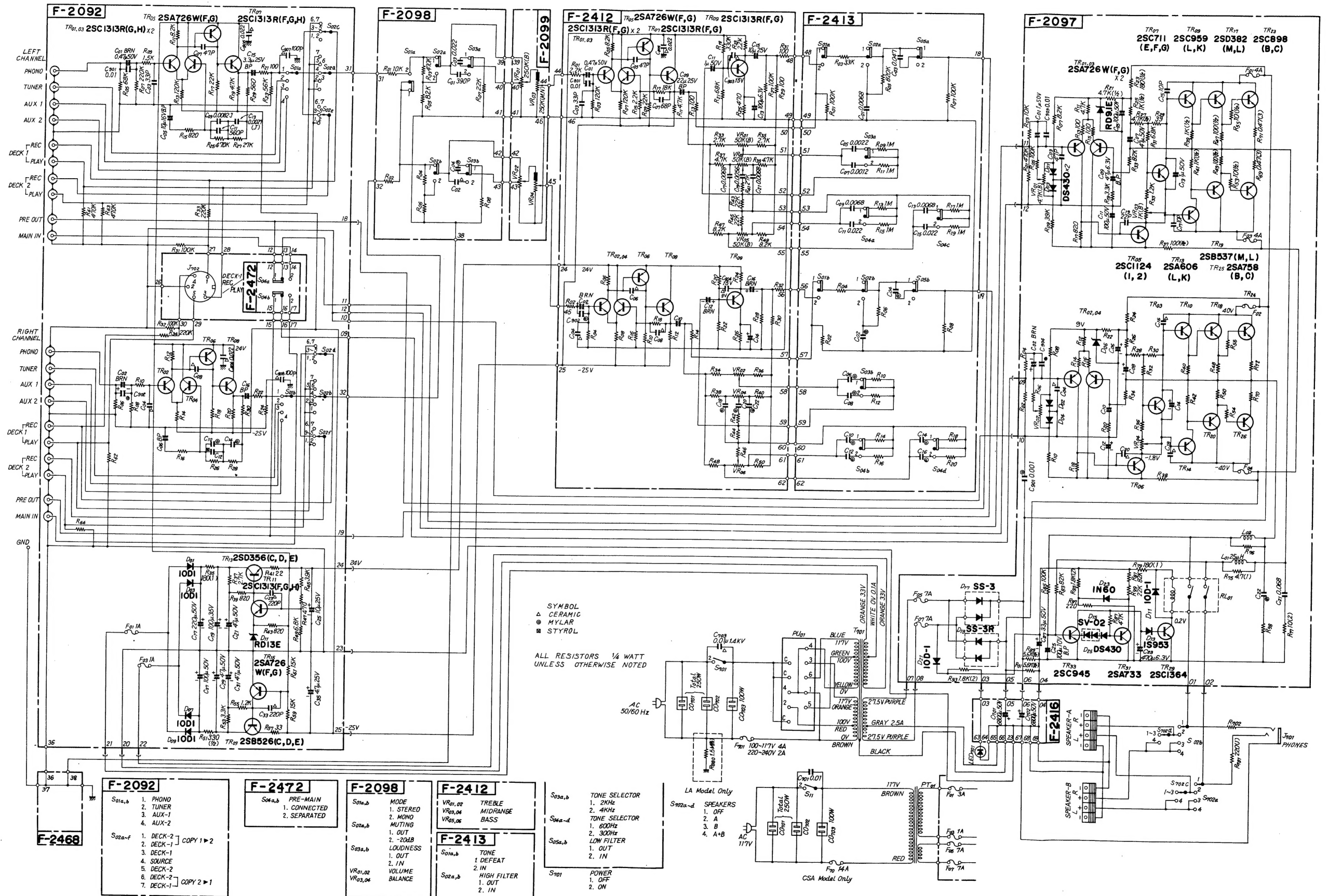


## 8. ACCESSORY PARTS LIST

Stock No.	Description
0433630	4A Quick Acting Fuse
5066250	Pin Plug Cover
9208270	Operating Instructions
9228270	Operating Instruction Sheet

# 9. SCHEMATIC DIAGRAM

\* Design and specifications subject to change without notice for improvements.





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